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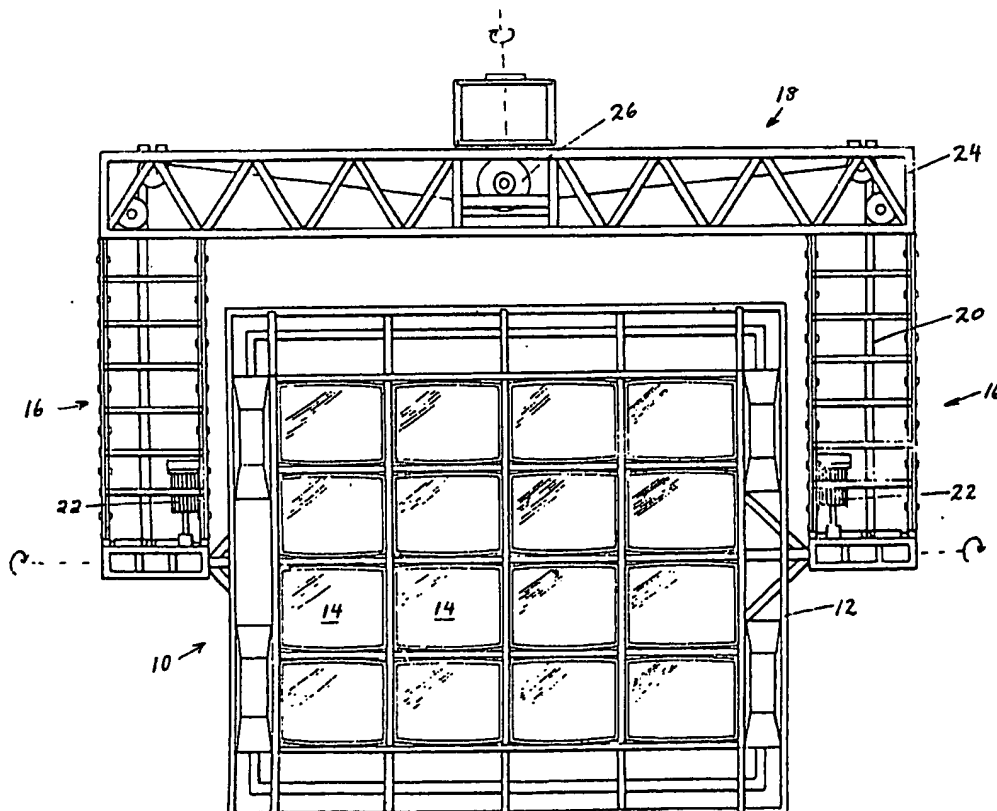
H4F

Selected US specifications from IPC sub-classes

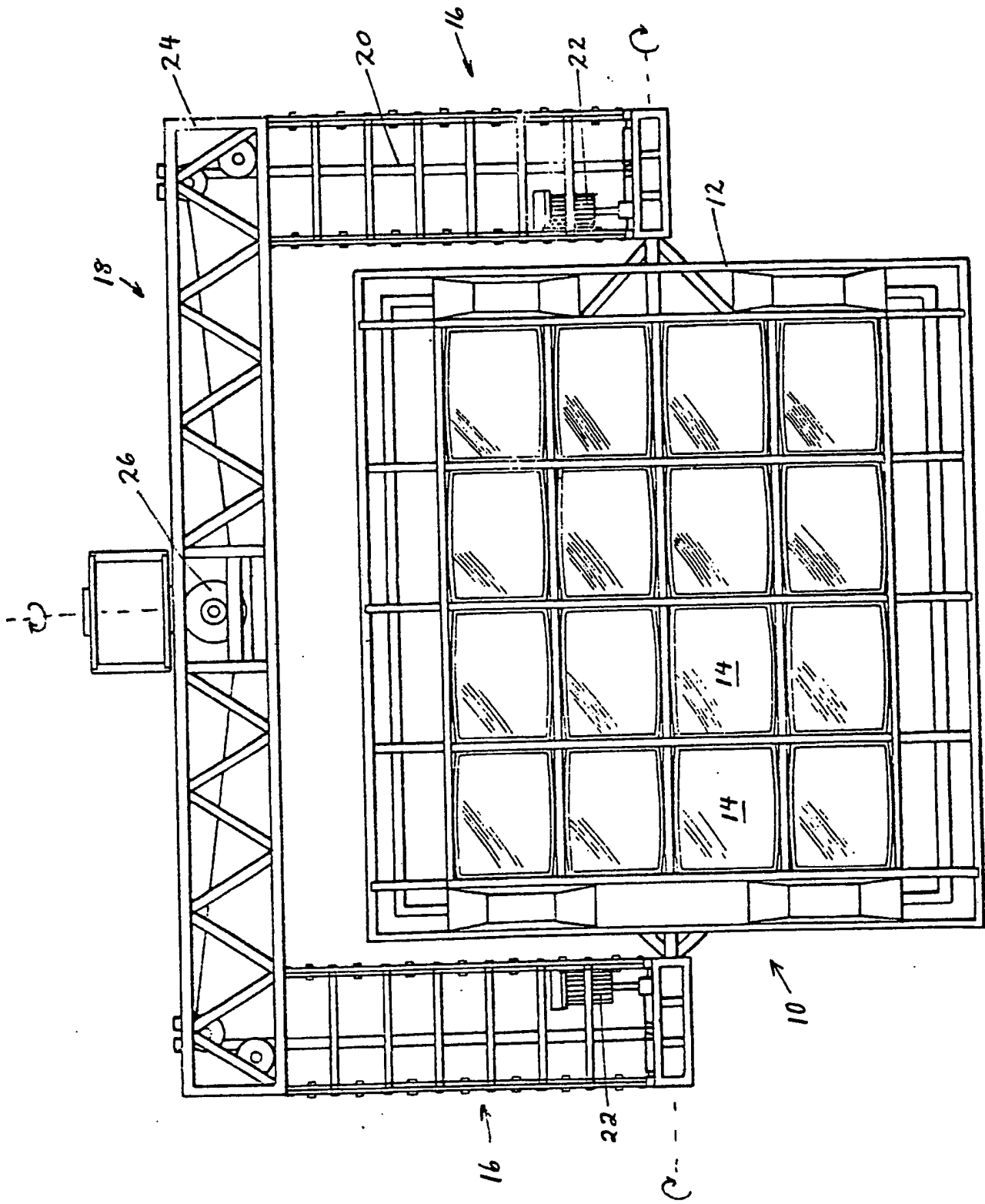
G09F G09G H04N

(54) Decorative display

(57) A display comprises a display panel 10 consisting of a matrix of independently controlled electronic display screens 14, e.g. TV screens, and mounted for rotation about mutually orthogonal axes. The panel 10 may be rotated about a horizontal axis by motors 22 provided on lazy tongues 16. The panel may be rotated about a central vertical axis to position it in any desired attitude by a motor (not shown) rotating a gantry 18. The panel may be raised or lowered by a hoist 20. The screens of the panel may display repeated images or a mosaic of a larger image in response to signals from broadcast TV, video recorder, a video camera or a computer. Lights and loudspeakers may additionally be positioned around the panel. The display may be used for disco lighting, in night clubs or other places of entertainment.



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DECORATIVE DISPLAY

The present invention is concerned with a display of aesthetic appeal for use in night clubs and other
5 centres of entertainment.

It is well accepted that the ambience in a night club is strongly dependent upon the lighting. Disco lighting which pulses in rhythm with the music is well known and
10 various other lighting effects such as oil wheels which give a moving large area display have also been popular in the past.

The present invention is concerned with such a display
15 which is designed for visual appeal and which has more versatility than the known displays.

According to the present invention, a display comprises a display panel consisting of a matrix of independently
20 controlled electronic display screens, which panel is mounted for rotation about mutually orthogonal axes.

Because the electronic display screens, which may be the screens of cathode ray tubes, are individually
25 controlled, they may form a repeated image or the individual images may form a mosaic of a larger image covering the area of several screens. The displayed image may in this way be varied at will. The images displayed on the screens may be live broadcasts, the
30 video output signals of a camera or a video cassette recorder or electronically generated special effects which are too numerous to mention.

The mounting of the display permits the display panel to
35 move around at will either continuously or to position the panel in any desired attitude. For example, the panel may be disposed vertically for viewing as a large area screen or horizontally as a novel ceiling to a

dancing area. Rotation about a vertical axis permits the panel to face different directions or to cause the whole display to rotate if it is horizontal.

5 Advantageously, additional lighting is incorporated around the display panel and/or on the rear side of the panel, that is the side opposite the screens. If desired, loudspeakers may also be included in the gimbal mounted panel.

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Preferably the mounting serves to suspend the display from a ceiling and comprises a cross bar rotatable about a central vertical axis and two limbs depending from the opposite ends of the cross bar, the display panel being
15 mounted for pivoting movement about a horizontal axis passing through the lower ends of the limbs.

It is further preferred that the limbs should be extendible to permit the height of the display panel to
20 be adjusted. To this end, the limbs may comprise a lazy tongues mechanism and a hoist to raising and lowering the lazy tongues.

The rotation of the display panel about a horizontal
25 axis may be effected by means of a motor also carried at the lower end of the limbs.

The invention will now be described further, by way of example, with reference to the accompanying drawing
30 which is a front view of a display of the invention.

The display comprises a display panel 10, which consists of a metal frame 12 supporting a plurality of cathode ray tubes 14, preferably of the flat screen type. The
35 frame 12 is rotatably mounted on the lower ends of two lazy tongue mechanisms 16 and can be rotated about a horizontal axis so that the screens of the tubes 14 can face vertically or horizontally.

The lazy tongues 16 form part of an overhead gantry 18 which includes a horizontal cross bar 24 mounted on the ceiling for rotation about a central vertical axis so that the screens can be rotated to face any desired
5 direction. The motor for rotating the gantry 18 about the vertical axis is not shown in the drawing.

All around the display screens 14, the frame 12 carries lights of different sorts and on the opposite side of
10 the screens of the tubes 14 there are further lights and loudspeakers.

The lazy tongues 16 not only serve as part of the gimbal mounting but permit the display panel 10 to be raised
15 and lowered. To this end, a hoist 20 is incorporated in the lazy tongues 16 and driven by an electric motor 26. The rotation of the display about a horizontal axis is effected by further electric motors 22 carried by the lazy tongues 16.

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The display of the invention can be used as a large area display for video or broadcast television signals or a signal from a video camera. Furthermore, the displayed image can be manipulated electronically for display in
25 different form, for example as a mosaic, with split screen, framed etc. The display is therefore extremely versatile and can be used to achieve almost any desired effect. It is possible for the video signal to be generated electronically, for example by a computer,
30 thereby enabling an even wider range of effects to be achieved simply.

The incorporation of the other lights and sound sources is desirable as it increases the "high tech" appeal of
35 the display and enables moving sound as well as light. It is also desirable when displaying a singer or artist to be able to retain coincidence between the display and the sound source as the display is rotated.

CLAIMS

1. A display comprising a display panel consisting of a matrix of independently controlled electronic display screens, which panel is mounted for rotation about mutually orthogonal axes.
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2. A display as claimed in claim 1, wherein the electronic display screens are the screens of cathode ray tubes.
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3. A display as claimed in claim 1 or 2, wherein additional lighting is incorporated around the display panel and/or on the rear side of the panel.
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4. A display as claimed in any preceding claim, wherein loudspeakers are included in the display panel.
5. A display as claimed in any preceding claim, wherein the mounting serves to suspend the display from a ceiling and comprises a cross bar rotatable about a central vertical axis and two limbs depending from the opposite ends of the cross bar, the display panel being mounted for pivoting movement about a horizontal axis passing through the lower ends of the limbs.
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25
6. A display as claimed in claim 5, wherein the tow limbs are extendible to permit the height of the display panel to be adjusted.
30
7. A display as claimed in claim 6, wherein the limbs comprise lazy tongues mechanism, a hoist being provided to raise and lower the lazy tongues.
8. A display as claimed in claim 5, 6 or 7, further including at least one motor carried by the lower end of the limbs to effect rotation of the display panel about a horizontal axis.
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9. A display constructed, arranged and adapted to operate substantially as herein described with reference to and as illustrated in the accompanying drawings.